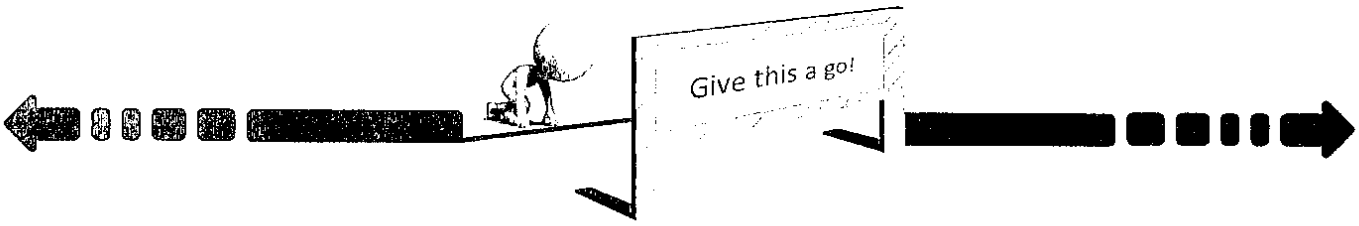
Numbers come in all sizes and forms. They can be positive or negative, whole numbers, fractions or decimals and rational or irrational.

Before you start, investigate these terms and write a brief description about them in the boxes.

Positive and negative numbers:

Whole numbers, fractions & decimals:

Rational and irrational numbers:



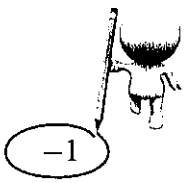
Calculate the value of: $(-2)^3 + \{-2 + [2 \times (2 + 2)]\}$

Types of numbers

Natural numbers are all the positive counting numbers $\{1, 2, 3, ...\}$.

Integers are all the positive $(+)$ and negative $(-)$ whole numbers (including zero).

Circle all the numbers below that belong to the family known as integers.
(psst!: some of them need to be simplified by calculating their value first)



-1 $\frac{1}{2}$ 0.42 $\sqrt{7}$ 13 -5.0 $-\frac{10}{5}$ $4\frac{1}{2}$ 0 $\sqrt{4}$ $\frac{4}{5}$ $-\sqrt{2}$ $-\sqrt{9}$ $1.19284750219...$ $\sqrt{5}$ 4 -16 9.86 $-\sqrt{8}$ $\sqrt{36}$ $\sqrt[3]{8}$ 10 $-0.\dot{3}$ $-\frac{1}{3}$ $\sqrt[3]{30}$

Place each of these numbers into their correct group below to classify them.

Irrational numbers can't be written as a fraction

Rational numbers can be written as a fraction

Integers: the positive and negative **whole** rational numbers including 0.

-1

Natural numbers: the counting rational numbers (not including 0).

Put the special types of rational numbers into their correct group

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